UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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October 19, 2007

Colonel Paul Grosskruger
District Engineer, Jacksonville
U.S. Army Corps of Engineers
701 San Marco Blvd.
Jacksonville, FL 32207

SUBJ: Draft Supplemental Environmental Impact Statement on Rock Mining in the Lake Belt Region of Miami-Date County, Florida, August, 2007 CEQ No. 20070364

ATTN: Ms. Leah Oberlin, EIS Project Manager
Regulatory Division, Palm Beach Gardens Regulatory Office

Dear Colonel Grosskruger:

Pursuant to Section 102(2) (C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the subject U.S. Army Corps of Engineers (USACE) Draft Supplemental Environmental Impact Statement (EIS) on environmental impacts associated with limestone mining in Miami-Dade County, Florida. Limestone mining is occurring in a region described as the "Lake Belt", an area situated along the eastern boundary of the Everglades National Park (ENP) and related conservation areas in northwest Miami-Dade County. Limestone mining provides base materials used in building homes, roads, and other infrastructure. The subject draft supplemental EIS expands the depth of analyses provided in the earlier *Final Programmatic Environmental Impact Statement for Rock Mining – Freshwater Lake Belt Plan, Miami-Dade County, Florida*, issued by the USACE in May, 2000.

Background – The Florida Legislature established the Lake Belt Mitigation Committee in 1992 to develop the Miami-Dade County Lake Belt Implementation Plan. The goals of the Plan were to enhance water supply for Dade County and the ENP; maximize efficient recovery of limestone, while at the same time, promoting the social and economic welfare of the community; protect the environment; and educate the public about the benefits of the Plan. The Committee, in which the USACE and EPA are ex-officio members, conducted a substantive planning and interagency coordination that are documented in the Plan (Phase I, 1997 and Phase II, 2000). The Plan, enacted in 1999 by the Florida Legislature (FS 373.41492(9)(a), established of a per-ton mitigation fee to be collected on all limestone and sand sold from the Lake Belt area, and created a Mitigation Committee with annual reporting responsibility. The Mitigation Committee includes stakeholder representatives from Federal (USACE, EPA, and the U. S Fish and Wildlife Service (FWS), state agencies, non-government organizations, and the Miami-Dade Limestone Products Association (MDLPA). Per-ton fees collected pursuant to the Plan

are to be used for mitigation to compensate for unavoidable environmental impacts from mining activities, specifically, "...[S]uch mitigation may include the purchase, enhancement, restoration, and management of wetlands and uplands, the purchase of mitigation credit from a permitted mitigation bank, and any structural modifications to the existing drainage system to enhance the hydrology of the Miami-Dade County Lake Belt Area." FS 373.41492(9)(a) (amended in 2006) also designates a fee to fund improvements to treatment plants receiving water from the Miami-Dade Northwest Wellfield (NWWF).

Consultation History - EPA commented on the earlier draft and final *Programmatic Environmental Impact Statement for Rock Mining* on June 1, 1999, and September 20, 2000, respectively, which focused on the potential impacts of a 50-year mining plan in the Lake Belt region. The USACE in April, 2002, issued a Record of Decision (ROD) and 10-year Section 404 permits authorizing mining in the Lake Belt, based on the tenants of the mining plan. Coordination between EPA and USACE pursuant to Lake Belt limestone mining on NEPA and Section 404 permit issues has been extensive. EPA provided comments to the USACE on the Lake Belt Section 404 permit public notices in letters dated August 21, 2000, September 15, 2000, April 26, 2001 and February 7, 2002.

After the April, 2002, ROD was issued it and the 2000 *Final Programmatic EIS for Rock Mining* were the subject of a lawsuit brought before the U.S. District Court, Southern District of Florida, by the Sierra Club, Natural Resources Defense Council, and the National Parks Conservation Association (*Sierra Club* v. *Flowers*, Case No. 02-23427-CIV-Hoeveler). In March 2006, Judge Hoeveler agreed with the plaintiffs' claims regarding deficiencies in the environmental evaluation presented in the 2000 *Final Programmatic EIS for Rock Mining* and remanded the matter to the USACE for further development. The subject *Draft Supplemental Environmental Impact Statement on Rock Mining in the Lake Belt Region of Miami-Dade County, Florida* was issued in response.

On July 13, 2007, the Court Order supplementing the Order of March 22, 2006, was issued and set aside four of the existing ten permits within an expanded setback zone around Miami-Dade County's Northwest Wellfield. The Court emphasized the potential for contamination of the Biscayne Aquifer and believes that the 60-day wellfield mining setback area established by Miami-Dade County was insufficient to protect the wellfield that exists within the Lake Belt. The Court instead identified an expanded 60-day setback area that applies until completion of the supplemental EIS and vacated the four mining permits that are within this expanded setback area. Mining was ordered to stop in these areas as of July 17, 2007.

Draft Supplemental EIS Objectives – The objectives of the draft supplemental EIS are to:

- Comply with the Order of the U.S. District Court for the Southern District of Florida in *Sierra Club* v. *Flowers*, Case No. 02-23427-CIV-Hoeveler (U.S. District Court 2006a) and the Court's recent Order of July 2007, supplementing the Court's Order of March 2006 (U.S. District Court 2007)

- Evaluate the existing environmental condition and potential future impacts associated with the excavation of limestone from the Lake Belt area
- Evaluate the existing socioeconomic condition and potential future impacts associated with the excavation of limestone from the Lake Belt area, and
- Describe and assess alternatives to limestone mining in the Lake Belt area (i.e., non-Lake Belt area sources of limestone)

Alternatives and **Associated Wetland** – The draft supplemental EIS identifies and evaluates seven alternatives associated with varying amounts of limestone mining in the Lake Belt area, summarized below. (The estimated wetland losses associated with the seven evaluated alternatives, relative to 2002 baseline conditions, are provided.)

Alternative 1 – Immediate cessation of permitted limestone mining activities (2,431 acres)

Alternative 2 - Mining continuing through the life of the existing USACE Section 404 permits until approximately 2012, at which time limestone mining in the Lake Belt would stop (3,668 acres)

Alternatives 3 through 7 – Enables Lake Belt mining activities to continue until approximately the 2022 to 2031 period, based on current and projected limestone mining rates and sales (Alternative 3: 9,510 acres; Alternative 4:13,563 acres; Alternative 5: 11,176 acres; Alternative 6:12,908 acres; and Alternative 7:10,521 acres)

Socioeconomic Impacts of Alternatives– In 2006 the Lake Belt area produced over 54 million tons of limestone, over 40 percent of Florida's total output. Socioeconomic impacts associated with the proposed alternatives could depend on the alternative implemented. Alternative 1, a complete shutdown of mining activities by 2008, represents the most significant alternative in terms of potential socioeconomic impacts within Florida. Alternative 2 would be expected to result in the next greatest socioeconomic impact as it calls for a shut down of mining in the Lake Belt area as soon as 2012, leaving approximately four years for the necessary infrastructure improvements to Florida's ports and railways to be implemented. Under Alternatives 3 through 7, the earliest that mining would end in the Lake Belt would be 2018. Alternative 4 would see the limestone resources fully exploited by 2032.

EPA's Primary Environmental Concerns – EPA's review of the proposed actions has focused on three primary environmental concerns: 1) Mining impacts to wetlands and mining impact mitigation sufficiency; 2) Mining-related seepage impacts to wetlands in the Lake Belt area and the lack of specific seepage remediation actions; and 3) Direct and indirect adverse water quality/drinking water impacts on the Miami-Dade NWWF from limestone mining related activities.

Wetland impacts/mitigation sufficiency - The analysis of impacts on wetlands associated with the seven alternatives, in conjunction with and the complex interagency wetland mitigation activities that are being administered by the Miami-Dade County Lake Belt Mitigation Committee, were well-documented in Chapters 3, 4 and 5. EPA is pleased that the wetland mitigation per-ton fee, being levied to compensate for increased

land acquisition and exotics management costs, has been increased from $0.05/ton to $0.12/ton (effective in January, 2007), and eventually will increase to $0.024/ton in January, 2009.

Several wetland mitigation issues require further consideration, in our view. The document concludes (pg 5-26) that sufficient wetland mitigation options exist within boundary of Miami-Dade County to accommodate the full range of wetland impacts proposed in Alternatives 1 through 7. The draft supplemental EIS acknowledges, however, that all available mitigation credits in the Pennsuco would be exhausted long before Alternatives 3-7 could be implemented. It is evident that successful wetland compensation can only be achieved for Alternatives 3-7 through utilization of non-Pennsuco wetlands. The document should acknowledge the high level of uncertainty and fiscal constraints that will hinder acquisition of non-Pennsuco mitigation lands.

While the document describes anticipated adverse seepage impacts of the various Alternatives to Pennsuco wetland hydroperiods (Section 4.6 and summarized on pages S-10 -11), EPA could not determine how increased seepage caused by mining was factored into the crediting of Pennsuco wetland mitigation efforts. If the Pennsuco wetland hydroperiods were reduced from approximately 137 days per year down to 118 days per year (Alternatives 4 and 6), then the beneficial wetland functions in the Pennsuco would also be correspondingly reduced. EPA suggests that the final supplemental EIS should fully evaluate the impacts of potential reduced hydroperiods on proposed wetland mitigation strategies.

EPA Concerns with Mining-Related Seepage Impacts - EPA is concerned that public waters are being lost through leakage from public lands (the ENP) and water conservation areas as a result of actions by a for-profit enterprise without firm commitments by the mining industry to replace or mitigate for anticipated water seepage losses. The analysis of seepage impacts associated with various future limestone mining alternatives (Section 4.6 , Sections 5.3.1 and 5.3.2) indicate that increased mining will result in increased west-to-east seepage from Canals L-30, L-31 and L-33, the Pennsuco wetlands, and other Lake Belt wetlands east of the Dade-Broward levee. While seepage mitigation options were identified, we could find no requirement obligating the mining industry or the USACE to implement mitigation actions, nor was there discussion regarding the feasibility of implementing any mitigation options. Because it is within the realm of possibility that the seepage losses cannot be mitigated, the document should acknowledge this and discuss feasible contingencies. While the document identifies (on Pages 4-39 thru 4-51) seepage impacts for each alternative, with the exception of the mitigation fee that can only be applied to impacts specifically attributable to the Krome Quarry, the lack of details is unsettling. EPA suggests, that given the complexity of the seepage issues, the final supplemental EIS should specify seepage mitigation actions and responsibilities to be assumed by Federal, State, local governments, and the mining industry.

Should the USACE have information that continued limestone mining is resulting in large scale drainage and degradation of the Pennsuco Wetlands, then it might be

necessary to hold in abeyance the Section 404 permits until the MDLPA develops/commits to implement seepage mitigation strategies. It should be noted that seepage impacts can be expected to be greatest during times of drought, exactly the same time when competition for regional freshwater supplies is highest. EPA suggests that the final supplemental EIS explore how appropriate is the use of regional public water supplies to offset private sector mining-related seepage impacts.

Water Quality Impacts to the Miami-Dade County Northwest Wellfield – EPA is concerned that removing the limestone matrix which forms the protective upper layer of the Biscayne Aquifer proximate to the NWWF may, directly or indirectly, be impacting the drinking water supply of Miami-Dade County. Primary concerns are that waterborne pathogens (such as Cryptosporidium, Giardia, and fecal coliform bacteria, and volatile organics, including benzene) may enter and contaminate the Biscayne Aquifer. The document does describe strategies designed to protect the County's drinking water supply. EPA supports the on-going monitoring efforts by Miami-Dade County and MDLPA (See Sections 3.7 Affected Environment; Section 4.7 Water Quality; Sections 5.33 and 5.34 – Mitigation of Potential Flow of Pathogens in Groundwater and Mitigating Actions for Alternatives 1 through 7.) EPA and Miami-Dade County DERM staffs are consulting regarding on-going and proposed drinking water protection and remediation efforts, including:

- Miami-Dade DERM, in conjunction with the Water and Sewer Authority (WASA), is proposing to construct additional water filtration/purification facilities at the John Preston Water Treatment Plant (WTP) to ensure future removal of pathogens from the County's water supply
- DERM is implementing a Corrective Action Plan (CAP) at the NWWF to reduce benzene contamination risk by operating two southern production wells (PW-1 and PW-2) as recovery wells to provide a hydraulic barrier to benzene contaminant plume migration towards the remaining production wells and to provide rehabilitation of the impacted groundwater
- The Hialeah/Preston Water Treatment Plant (WTP) is removing volatile organics/benzene using air stripping technology capable of protecting the public drinking water supply from benzene occurring at the NWWF
- MDLPA is implementing a $0.15/ton fee starting in January 2007, to contribute to upgrading the Hialeah/Preston WTP

The document states that quality monitoring to date has not revealed Cryptosporidium or Giardia in the quarry lakes or at the NWWF wellheads. Because these pathogens can occur in surface waters contaminated by feces from wild/domestic birds and mammals, long-term potential contamination of the lakes cannot be eliminated from consideration. Benzene concentrations exceeding EPA minimum contaminant levels (MCL) have been reported in the Lake Belt and NWWF during 2005-6, and while DERM has not been able to identify the source(s) of the benzene contamination, the close proximity of the numerous limestone quarries/ongoing rock mining activities to the NWWF, it appear to EPA that these activities are a potential source for the contamination.

Recommended Continuing Water Quality Monitoring/Reporting – EPA recommends that the MDLPA be required, through special conditions in current and future Section 404 permits, to cooperate with the County in implementing/funding an adequate water quality monitoring program(s) to ensure the continued safety of the NWWF drinking water supply. These reports should be provided to the USACE, EPA, FDEP and the Florida Department of Health.

Editorial - Page 1-1, paragraph 2 - The statement that "... [T]he U. S. Environmental Protection Agency (EPA) was granted authority to designate disposal sites." is misleading. This statement should read as follows, "...[T]he U. S. Environmental Protection Agency (EPA) was granted authority to prohibit and/or restrict disposal sites."

Summary - This draft supplemental EIS greatly expands our understanding of the overall impacts of the proposed action(s). EPA supports the on-going monitoring efforts by Miami-Dade County and MDLPA, and believes that water quality monitoring programs should continue in both the mining lakes and the NWWF wellfields. We suggest that current and future Section 404 permits be written with conditions requiring that Applicants fully participate with the County in implementing/funding adequate water quality monitoring programs to ensure the continued safety of Miami-Dade County's drinking water. The final supplemental EIS should identify the agencies/ entities responsible for obtaining wellfield field/sampling data, laboratory analyses, reduction/ collation of water quality data, and preparation and distribution of technical reports. EPA recommends that Lake Belt and NWWF wellfield water quality reports be provided to the public, USACE, EPA, FDEP and the Florida Department of Health. We suggest that specific actions/agencies responsible for mitigating mining-related seepage be identified in the document. The high levels of fiscal uncertainty accompanying non-Pennsuco wetlands mitigation efforts should be acknowledged. To provide assurance about these and other major aspects of the proposed actions, the EPA and other regulatory agencies should be given an opportunity to provide input to the Record of Decision prior to its finalization.

Thank you for the opportunity to comment on the subject document. EPA rates this action as "EC-2" (environmental concerns, more information is requested), that is, our review has identified environmental impacts that should be avoided to fully protect the environment, and that identified additional information, data, analyses or discussions should be included in the final supplemental EIS. If we can be of further assistance in this matter, please contact John Hamilton (404-562-9617) of my staff will serve as initial point of contact regarding NEPA issues.

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office